January 31, 2023

Des Gillen
President
BP-Husky Refining LLC
4001 Cedar Point Road
Oregon, OH 43616
P 567.698.4529
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City of Toledo
Division of Environmental Services
348 S. Erie Street
Toledo, OH 43604
Attn.: Peter Park

RE: Title V Quarterly Deviation Report – 4th Quarter 2022

Dear Peter:

The Title V Permit (P00128721) issued to BP-Husky Refining LLC Toledo Refinery (BPH) effective on November 18, 2021, requires reports to be submitted quarterly outlining known deviations of emission limitations, operational restrictions, or control device operating parameter limitations. The permit also requires semi-annual reports outlining deviations of requirements in the permit, principally the monitoring, recordkeeping, and reporting (MRR) requirements. The permittee chooses to report known MRR semi-annual deviations identified during the quarter in its quarterly deviation report.

This letter and its attachments constitute the Title V Deviation Report reflecting the deviations identified during the fourth quarter of the 2022 calendar year, including MRR deviations identified at the time of this report that are required to be reported semi-annually. The requirement for these reports is contained in Part A. of the Title V Permit as Standard Term and Condition A.2.c. This report also satisfies the requirement for such reporting in OAC Rule 3745-77-07(A)(3)(c).

In order to consolidate reports, this letter and its attachments also constitute the deviation reports for all the Permits to Install (PTIs) that have been incorporated into the Title V Permit and that have PTI requirements for deviation reporting. All known deviations of the Title V Permit and currently effective PTIs are presented in the attached quarterly deviation report. The following also provides some additional background on a few of the issues relevant to the fire at the facility in September 2022.

September 20, 2022 – BPH Fire

On September 20, 2022, BPH experienced a fire near the Crude Vac 1 (CV1) unit and TIU mix drum, causing a refinery-wide shutdown. This fire impacted the quality of some fuel going to the fuel gas system, and it resulted in damage to a portion of the hydrocarbon flare system, which includes a flare gas recovery compressor system. As result, BPH's flare gas recovery system is offline. BPH continuously flared during the shutdown and deinventoring process starting on September 20, 2022 and continuing through the end of the year.

As a result of the fire, BPH initiated an immediate shutdown of all processing feeds. Once the fire was extinguished, BPH began a longer shutdown process to deinventory, purge and park units until such time as the Refinery is restarted.

As part of this shutdown, there were excess emissions from the Sulfur Recovery Units (SRUs). BPH is reporting these excess emission hours in the SRU summary tables under the startup/shutdown lines. This is not a violation of 40 CFR 60 Subpart Ja, pursuant to 40 CFR 60.8(c), which states that emissions during startup, shutdown, and malfunction shall not be considered a violation of the applicable emissions limit unless otherwise specified in the applicable standard.

Due to nitrogen and steam purges for equipment and units that have already been deinventoried and cleaned, the hydrocarbon flare system will continuously flare with the potential for excess emissions until flare gas recovery can be safely restarted as stated in the malfunction notification submitted to Ohio EPA / TDES on October 7, 2022.

Air Toxics Report Requirements

Modeling was conducted for several sources in the BP-Husky Toledo Refinery as required by the Ohio Air Toxics Rules found in ORC 3704.03(F). BP-Husky is required by Sections C.6.e)(3) and C.36.e)(6) of the Title V permit to report when there are changes to a parameter or value used in the dispersion model that was used to demonstrate compliance with ORC 3704.03(F) for the Reformer 3 heater (B036) and the East and West Alstom Boilers (B4), respectively. This report serves to state that there were no changes to a parameter or value used in the dispersion model that was used to demonstrate compliance with ORC 3704.03(F) for the Reformer 3 heater (B036) and the East and West Alstom Boilers (B4).

After making reasonable inquiry, the Refinery is submitting this deviation report in good faith. This report is grounded in information currently available to the Refinery. The fire and events related to the fire are still under investigation. Thus, the Refinery reserves the right to amend, modify, supplement and/or correct information contained within this report at a later date should it deem necessary.

This report and cover letter were prepared in accordance with a system designed to assure that qualified personnel evaluated all reasonably available information relevant to compliance with the terms and conditions of the Title V Permit over the period covered by the report and that they then reported to me their conclusions with respect to compliance. Based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete. However, the certification of this report and cover letter should not be interpreted to imply that I have personally reviewed all documents, data, or other information underlying the compliance determination. Nor should it be read to imply that the persons responsible for gathering and evaluating the information relied on in preparing this report and cover letter have reviewed all information generated by operations at the facility. As with any regulatory program, it is possible that there were deviations from permit conditions which may not be identified in the normal course of a good faith effort to implement the required compliance efforts under these programs.

In addition, the certification of this report and cover letter should not be construed as containing any admissions that the reported deviations or other events are violations of any applicable requirement. In some cases, applicable rules contain various defences and/or exemptions which may excuse particular deviations. In other cases, the question of whether a particular event constituted a deviation or violation may be subject to interpretational disputes. In still other cases, events may be reported as deviations out of an abundance of caution despite the fact there is insufficient information to determine whether the deviation actually occurred.

If you have any questions concerning this report, please contact Ashley Zapp (ashley.zapp@bp.com or 567-698-4410).

Sincerely,

DocuSigned by:
Des Gillen
90F20640AD13450...

Des Gillen
President - BP-Husky Refining LLC

Ohio Environmental Protection Agency
Deviation Reporting Form

FACILITY NAME		BP-Husky Refining LLC		
FACILITY ID (PREMISE NUMBER)		04-48-02-0007		
FACILITY ADDRESS		4001 Cedar Point Road, Oregon, OH 43616		
Issuance or most recent modification date		P0128721 - Minor Permit Mod effective 11/18/2021 (expires 8/3/2022)		
QUARTERLY Reporting Period		**SEMIANNUAL** Reporting Period (please indicate "N/A" below in the "From" and "To" fields if this report does not include semiannual deviation reporting)		
From: 10/01/2022	To: 12/31/2022	From: 10/01/2022	To: 12/31/2022	
Total pages in report, including this one (signature page and sections I, II, and III)		15		
Please list any supporting attachments		N/A		
Reporting deadline		1/31/2023		

NOTE: The deviation reporting period shall be stated in the following format: "xx/xx/xx through zz/zz/zz" where xx/xx/xx and zz/zz/zz are the beginning and end dates for the deviation reporting period respectively.

SIGNATURE FOR STATEMENT
This statement shall be signed by the responsible official as defined in OAC rule 3745-77-01(GG). Making of any false material statement, representation or certification constitutes a violation of ORC 3704.05(H), and subjects the responsible party signing this statement to civil and/or criminal penalties as provided in ORC 3704.06(C) and ORC 3704.

CERTIFICATION
Based on information and belief formed after reasonable inquiry, I hereby affirm, as stated in OAC rule 3745-77-03(D), that the statements and information as transmitted in this Title V report are true, accurate and complete to the best of my knowledge.

Authorized Signature DocuSigned by: Des Gillen 90F30340AD13450... Date January 31, 2023

Name (Please Print) Des Gillen Title President, BP-Husky Refining LLC

Ohio Environmental Protection Agency
Deviation Reporting

FACILITY NAME		BP-Husky Refining LLC	
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From: 10/01/2022	To: 12/31/2022	From: 10/01/2022	To: 12/31/2022
Reporting Deadline		1/31/2023	

(Part B) - Facility-wide Permit Requirement Reporting

Insignificant Emissions Unit Negative Declarations (Table 1)

List each insignificant emissions unit where no deviations of any PTI terms or applicable requirements for the listed emissions unit occurred, or add rows as necessary to the deviation reporting table (see next page) for reported deviations (one for each term as applicable; see detailed instructions for more information)

THERE WERE NO DEVIATIONS OF ANY PTI TERMS OR APPLICABLE REQUIREMENTS FOR THE FOLLOWING LISTED INSIGNIFICANT EMISSIONS UNITS IDENTIFIED IN (PART B.28) OF THE TITLE V PERMIT:
F002, G001, J008, J009, J011, L001, P030, P034, P038, P046, P047, P052, P061, P062, P064, P065, P066, P067, P068, P802, T042, T043, T048, T095, T112, T117, T121,
T135, T141, T145, T148, T149, T151, T159, T163, T168, T169, T172, T173, T191, T196, T197, TMP196253

Ohio Environmental Protection Agency
Deviation Reporting

FACILITY NAME		BP-Husky Refining LLC	
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FACILITY ADDRESS		4001 Cedar Point Road, Oregon, OH 43616	
Issuance or most recent modification date		P0128721 - Minor Permit Mod effective 11/18/2021 (expires 8/3/2022)	
QUARTERLY Reporting Period		**SEMIANNUAL** Reporting Period (please indicate "N/A" below in the "From" and "To" fields if this report does not include semiannual deviation reporting)	
From: 10/01/2022	To: 12/31/2022	From: 10/01/2022	To: 12/31/2022
Reporting Deadline		1/31/2023	

(PART A) - General Terms and Conditions (Permit Requirement Reporting) (Table 1)

Mark the following box with an 'X' if no General Terms and Conditions deviations occurred

X	**THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF PART A OF THE TITLE V PERMIT DURING THE REPORTING PERIOD**

Add rows as necessary to the following table for reported deviations (one for each General Term as applicable; see detailed instructions for more information) (Table 2)

TITLE V PERMIT TERM NO. Description	Reporting Requirement (Choose one)		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION INFORMATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN
				DEVIATION DURATION		DESCRIPTION AND MAGNITUDE OF THE DEVIATION		
	Quarterly	Semi-Annual		DATE / TIME START	DATE / TIME END			

Ohio Environmental Protection Agency
Deviation Reporting

FACILITY NAME		BP-Husky Refining LLC	
FACILITY ID (PREMISE NUMBER)		04-48-02-0007	
FACILITY ADDRESS		4001 Cedar Point Road, Oregon, OH 43616	
Issuance or most recent modification date		P0128721 - Minor Permit Mod effective 11/18/2021 (expires 8/3/2022)	
QUARTERLY Reporting Period		**SEMIANNUAL** Reporting Period (please indicate "N/A" below in the "From" and "To" fields if this report does not include	
From: 10/01/2022	To: 12/31/2022	From: 10/01/2022	To: 12/31/2022
Reporting Deadline		1/31/2023	

Facility-wide Permit Requirements Terms and Conditions (Permit Requirement Reporting) - Negative Declarations (mark with an 'X' if applicable) **(Table 2)**

	THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF PART B OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Part B - Facility-wide and/or IEU permit requirement (Permit Requirement Reporting) - Deviation Reporting (Table 3)

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

TITLE V PERMIT or IEU PERMIT TERM NO./Description or PTI terms for IEUs	Quarterly	Semi-Annual	ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION INFORMATION: DEVIATION DURATION: DATE / TIME START	DEVIATION INFORMATION: DEVIATION DURATION: DATE / TIME END	DEVIATION INFORMATION: DESCRIPTION AND MAGNITUDE OF THE DEVIATION	PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION ? (Yes or No - If Yes, continue to the next column)	MALFUNCTION VERBAL REPORT(S) DATE(S) (If no reports were made, state "NO REPORTS" in the space below)	MALFUNCTION WRITTEN REPORT(S) DATE(S) (If no reports were made, state "NO REPORTS" in the space below)
Part B.7 - ...the permittee shall at all times comply with the effective rules and compliance dates as established by approved extensions, litigation, EPA clarifications, or rule changes as published even if the requirements reflected in the language of this permit are different. [Also reported in Part C - tbl 2]	X	X	Various	Various	Various	The specific deviations to the requirements effective after Feb 1, 2017 that have deviations are listed in Part C - tbl 2 of this deviation report and have been marked "RSR Deviations" for clarification. The details of these deviations for 3Q2022 are included in that table and only generally referenced here so as to not have duplicative information. *(Revisions to 40 CFR 63 Subparts CC and UUU (Refinery MACT I and II) were promulgated on December 1, 2015 as part of EPA's Petroleum Refinery Sector Risk and Technology Review Rule (RSR) and further revisions and clarifications were promulgated on July 13, 2016. The BP-Husky Title V permit includes the Refinery Rule (RSR) MACT requirements that apply to the refinery and that are effective through February 1, 2017. However, the requirements of the RSR that have compliance dates after February 1, 2017 (and thus are not yet effective) are only generally referenced at the Subpart level in this section of the permit.)*	NO	NO	NO
Other than the deviations listed above (or elsewhere in this report) there were no other deviations of Part II requirements of the Title V permit and other PTIs incorporated in the Title V permit.											

Ohio Environmental Protection Agency
Deviation Reporting

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FACILITY ADDRESS		4001 Cedar Point Road, Oregon, OH 43616	
Issuance or most recent modification date		P0128721 - Minor Permit Mod effective 11/18/2021 (expires 8/3/2022)	
QUARTERLY Reporting Period		**SEMIANNUAL** Reporting Period (please indicate "N/A" below in the "From" and "To" fields if this report does not include semiannual deviation reporting)	
From: 10/01/2022	To: 12/31/2022	From: 10/01/2022	To: 12/31/2022
Reporting Deadline		1/31/2023	

PART C - Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Negative Declarations (Table 1)

List each emissions unit where no deviations of any terms for the listed emissions unit occurred, or add rows as necessary to the second table (see next page) for reported deviations (one for each term as applicable; see detailed instructions for more information)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF PART III (Section C) OF THE TITLE V PERMIT FOR THE FOLLOWING LISTED EMISSIONS UNITS:

Emission Unit ID	Please place an 'X' below if there were no Quarterly Deviations - If an 'X' is not indicated, the deviation(s) must be identified in Table 2 below	If applicable, please place an 'X' below if there were no Semiannual Deviations - If an 'X' is not indicated, the deviation(s) must be identified in Table 2 below
B015	X	X
B019	X	X
B029	X	X
B031	X	X
B032	X	X
B036	X	X
F001	X	X
F005	X	X
F006	X	X
J004	X	X
J005	X	X
P007	X	X
P009	Part C-tbl 2 - SO2 deviation	Part C-tbl 2 - late RCA deviation
P010	X	X
P011	X	X
P014	X	X
P017 (see Note 2 below)	X	X
P025 (see Note 2 below)	Part C-tbl 2 - CD Audit deviation	Part C-tbl 2 - CD Audit deviation
P036 (see Note 2 below)	X	X
P037	X	Part C-tbl 2 - late RCA deviation

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF PART III (Section C) OF THE TITLE V PERMIT FOR THE FOLLOWING LISTED EMISSIONS UNITS:		
Emission Unit ID	Please place an 'X' below if there were no Quarterly Deviations - If an 'X' is not indicated, the deviation(s) must be identified in Table 2 below	If applicable, please place an 'X' below if there were no Semiannual Deviations - If an 'X' is not indicated, the deviation(s) must be identified in Table 2 below
P048	X	X
P053	X	X
P054	X	X
P803	X	X
T047	X	X
T073	X	X
T102	X	X
T120	X	X
T139	X	X
T164 (see Note 2 below)	X	X
T170 (see Note 2 below)	X	X
T177	X	X
Group B1: B008, B009, B010	X	X
Group B2: B017, B022	X	X
Group B3: B030, B033	X	X
Group B4: B034, B035	X	X
Group P1: P021, P022, P023 (see Note 2 below)	X	X
Group P2: P028, P029 (see Note 2 below)	X	X
Group P3: P041, P043 (see Note 2 below)	X	X
Group P4: P003, P004	Part C-tbl 2 - NHVcz, H2S deviations	Part C-tbl 2 - Monitoring, Record keeping deviations
Group P5: P055, P056, P057, P058	X	X
Group P6: P059, P060, P063	X	X
Group P7: P044, P045	X	X
Group T1: T078, T080, T081, T082, T086, T087, T088, T092,	X	X
Group T2: T113, T114, T115, T116	X	X
Group T3: T089, T153, T154, T155, T156, T157, T161	X	X
Group T4: T010, T011, T012, T013, T014, T051	X	X
Group T5: T045, T046	X	X
Group T6: T019, T084, T174, T187, T188	Part C-tbl 2 - EFR malfunction deviation (T174 only)	X
Group T7: T016, T017, T019, T020, T021, T024, T025, T026, T027, T028, T029, T030, T031, T032, T033, T034, T035, T036, T037, T038, T039, T040, T041, T044, T059, T060, T085, T090, T091, T096, T097	Part C-tbl 2 - open vacuum breaker deviation (T017 only)	X
Group T8: T166, T167	X	X
Group T9: T136, T137, T138	X	X

Ohio Environmental Protection Agency
Deviation Reporting

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Issuance or most recent modification date		P0128721 - Minor Permit Mod effective 11/18/2021 (expires 8/3/2022)	
QUARTERLY Reporting Period		**SEMIANNUAL** Reporting Period (please indicate "N/A" below in the "From" and "To" fields if this report does not include semiannual deviation reporting)	
From: 10/01/2022	To: 12/31/2022	From: 10/01/2022	To: 12/31/2022
Reporting Deadline		1/31/2023	

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P025 - Refinery WWT System	**Citation: P025: Part C.18.b)(1)i, b)(2)j.i: [40 CFR 60.690(a)(1)]** The provisions of Subpart QQQ apply to affected facilities located in petroleum refineries for which construction, modification, or reconstruction commenced after May 4, 1987. **Part C.18.c)(3)(c), d)(5)(c): [§60.692-2(a)]** -Each drain subject to 40 CFR 60.692-2 shall equipped with water seal controls. If a drain is in active service, water seal controls shall be checked by visual or physical inspection monthly.	X	X	Program Audit	4/22/2020	12/28/2022	Two areas drains, twelve hub drains, and three catch basins in the Hydrogen Unit area were not controlled with water seals and have not been monitored pursuant to NSPS QQQ requirements. (previously reported)	An NSPS QQQ audit was conducted in late 2019 per the Consent Decree at the BPH refinery. This audit found that BPH inadvertently missed including two area drains, twelve hub drains, and three catch basins in the Hydrogen area in the refinery NSPS QQQ Management Program when junction boxes (manholes) were modified for the Flare Gas and Recovery Treating Project.	A compliance plan was developed for the findings from the QQQ Audit and was submitted to TDES on July 21, 2020. Per this plan, the audit finding for this equipment was to be reviewed and verified prior to becoming a final deviation. The verification for these drains was completed on December 31, 2020. The upgrades were completed on December 28, 2022.	No	No Report	No Report
P025 - Refinery WWT System	**Citation: P025: Part C.18.b)(1)i, b)(2)j.i: [40 CFR 60.690(a)(1)]** The provisions of Subpart QQQ apply to affected facilities located in petroleum refineries for which construction, modification, or reconstruction commenced after May 4, 1987. **Part C.18.c)(3)(c), d)(5)(c): [§60.692-2(a)]** -Each drain subject to 40 CFR 60.692-2 shall equipped with water seal controls. If a drain is in active service, water seal controls shall be checked by visual or physical inspection monthly.	X	X	Program Audit	4/22/2020	12/28/2022	Fourteen drain hubs, four clean-outs, ten catch basins, and five manholes that were part of the 1993 Benzene Stripper project were not designed to meet the requirements of NSPS QQQ - have not been monitored. (previously reported)	An NSPS QQQ audit was conducted in late 2019 per the Consent Decree at the BPH refinery. This audit found that the 2015 Applicability Assessment report that had previously identified the 1993 Benzene Stripper project as not triggering the requirements of NSPS QQQ was incorrect. The 14 drain hubs, 4 clean-outs, 10 catch basins and 5 manholes installed as part of the Benzene Stripper project are subject to the requirements of NSPS QQQ.	A compliance plan was developed for the findings from the QQQ Audit and was submitted to TDES on July 21, 2020. Per this plan, the audit finding for this equipment was to be reviewed and verified prior to becoming a final deviation. The verification for these drains was completed on January 15, 2021. Fourteen drain hubs, four clean-outs, two catch basins, and five manholes have been added to the program. Eight catch basins require upgrades to meet QQQ design criteria. The upgrades were completed on December 28, 2022.	No	No Report	No Report
P003 - East Hydrocarbon Flare	**Citation: P003: Part C.40.b)(1)c [40 CFR 63 Subpart CC)]** *[Note: there is not a specific Title V reference to the following requirement]* ***[40 CFR 63.671(a)(1)]*** *(a)(1) Except for CPMS installed for pilot flame monitoring, all monitoring equipment must meet the applicable minimum accuracy, calibration and quality control requirements specified in table 13 of this subpart. Table 13 reqts - Conduct a flow sensor calibration check at least biennially (every two years);* ***[Also reported in Part B-tbl 3 - RSR Deviation]***		X	Continuous Monitoring System	5/31/2022	10/5/2022	The flow meter on the East flare measuring 3rd party Hydrogen flow (FI1736) did not complete its biennial calibration as required by May 31, 2022.	The flow meter on the 3rd party Hydrogen vent to the East flare is a Coriolis flowmeter. This was the first required biennial calibration since this meter was installed and the manufacturer recently reported that the transmitter cannot run the required smart meter verification (instrument calibration system) under flowing conditions. Therefore, the line must be out of service to complete the calibration. Since this line is not normally in service, it was not previously identified to be an issue. During the TIU TAR, the line was being utilized on a continuous basis to mitigate fuel gas imbalances during the turnaround. It could not be taken out of service without creating a risk for unstable operations.	The Refinery completed the calibration at the beginning of the 4th quarter of 2022 once this line was out of service and the calibration could be completed. The flow meter is now in compliance. The Refinery will plan in advance for future calibrations to complete during periods when the line will be out of service.	No	No Report	No Report

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P003 - East Hydrocarbon Flare	**Citation: P003: Part C.40.b)(1)c [40 CFR 63 Subpart CC (63.644(a)(2))]** *[Note: there is not a specific Title V reference to the following requirement]* **[40 CFR 63.644(a)(2)]** Where a flare is used on and after January 30, 2019, the requirements of §63.670 shall be met. **[40 CFR 63.670(e)]** For each flare, the owner or operator shall operate the flare to maintain the net heating value of flare combustion zone gas (NHVcz) at or above 270 British thermal units per standard cubic feet (Btu/scf) determined on a 15-minute block period basis when regulated material is routed to the flare for at least 15-minutes. ***[Also reported in Part B-tbl 3 - RSR Deviation]***	X		Continuous Monitoring System	10/8/2022 at 09:30 hours	10/8/2022 at 09:45 hours	The combustion zone net heating value of the flare measured less than the required 270 BTU/SCF for one (1) 15-minute quadrant during a flaring event.	The net heating value (NHVcz) on the East Flare dropped below 270 btu/scf for one (1) 15 minute quadrant during the process of switching the flare load from the East flare to the West flare. The flow rate to the East Flare changed quickly such that even though operations increased natural gas makeup, the flow of natural gas did not occur quickly enough to avoid the NHV exceedance.	Operations increased the natural gas make-up to the flare to increase the NHV above the limit as soon as the flow was diverted.	No	No Report	No Report
P004 - West Hydrocarbon Flare	**Citation: P004: Part C.40.b)(1)c [40 CFR 63 Subpart CC (63.644(a)(2))]** *[Note: there is not a specific Title V reference to the following requirement]* **[40 CFR 63.644(a)(2)]** Where a flare is used on and after January 30, 2019, the requirements of §63.670 shall be met. **[40 CFR 63.670(e)]** For each flare, the owner or operator shall operate the flare to maintain the net heating value of flare combustion zone gas (NHVcz) at or above 270 British thermal units per standard cubic feet (Btu/scf) determined on a 15-minute block period basis when regulated material is routed to the flare for at least 15-minutes. ***[Also reported in Part B-tbl 3 - RSR Deviation]***	X		Continuous Monitoring System	10/8/2022 at 11:45 hours 10/8/2022 at 15:15 hours 10/9/2022 at 15:15 hours 10/10/2022 at 06:15 hours	10/8/2022 at 12:15 hours 10/8/2022 at 15:45 hours 10/10/2022 at 05:30 hours 10/10/2022 at 13:00 hours	The combustion zone net heating value of the flare measured less than the required 270 BTU/SCF for a total of eighty eight (88) 15-minute quadrants during a flaring event.	The instantaneous NHVcz value that was recorded and viewed by operations was not reporting the correct NHVcz value. Upon review, it was discovered that the instantaneous calculation of the NHVcz was using a constant value of 635 btu in the calculation instead of the measured value of the gas being flared. The Refinery believes that this error occurred during or following the West Flare outage on September 21st. Based on the constant value, operations believed they were operating above 270 btu/scf during this flaring event, but when the actual btu input was used, the NHVcz was below 270 btu/scf for the 15-min quadrants.	Operations did not respond to these exceedances because they did not believe them to be deviations based on instantaneous NHVcz. The DCS point was reset, and the instantaneous NHVcz began reading the actual btu value. After this change, the NHVcz came back into compliance.	No	No Report	No Report

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P004 - West Hydrocarbon Flare	**Citation: P004: Part C.40.b)(1)c [40 CFR 63 Subpart CC (63.644(a)(2))]** *[Note: there is not a specific Title V reference to the following requirement]* **[40 CFR 63.644(a)(2)]** Where a flare is used on and after January 30, 2019, the requirements of §63.670 shall be met. **[40 CFR 63.670(e)]** For each flare, the owner or operator shall operate the flare to maintain the net heating value of flare combustion zone gas (NHVcz) at or above 270 British thermal units per standard cubic feet (Btu/scf) determined on a 15-minute block period basis when regulated material is routed to the flare for at least 15-minutes. ***[Also reported in Part B-tbl 3 - RSR Deviation]***	X		Continuous Monitoring System	10/11/2022 at 06:00 hours	10/11/2022 at 06:15 hours	The combustion zone net heating value of the flare measured less than the required 270 BTU/SCF for one (1) 15-minute quadrant during a flaring event.	During the btu analyzer daily calibration, the BTU analyzer began reading the btu content of the calibration gas, instead of the actual gas being flared. The calibration gas had a high BTU heating value. This high BTU reading caused the natural gas make-up valves for the West Flare to erroneously close. The BTU content of the actual gas being flared at that time was much lower than the calibration gas due to the amount of nitrogen in the flare header from the current equipment purges and cleaning. When the BTU analyzer daily calibration was complete, and the BTU analyzer began reading the heating value of the actual gas being flared, the heating value of the gas being flared was less than 270 Btu/scf limit for one 15-min quadrant. If the natural gas make-up valves had not been closed, it is believed that this would not have been a deviation.	Since the deviation was due to the BTU analyzer recording the heating value of the calibration gas instead of the actual gas being flared, the analyzer engineer began working so that the system would record the BTU value of the gas being flared prior to the daily calibration and hold that value until the daily calibration was completed. Once the calibration is completed, the BTU analyzer will begin reading the actual flare gas again. This will hopefully prevent the natural gas make-up valves from closing erroneously.	No	No Report	No Report
P003 - East Hydrocarbon Flare	**Citation: P003: Part C.40.b)(1)c [40 CFR 63 Subpart CC (63.644(a)(2))]** *[Note: there is not a specific Title V reference to the following requirement]* **[40 CFR 63.644(a)(2)]** Where a flare is used on and after January 30, 2019, the requirements of §63.670 shall be met. **[40 CFR 63.670(e)]** For each flare, the owner or operator shall operate the flare to maintain the net heating value of flare combustion zone gas (NHVcz) at or above 270 British thermal units per standard cubic feet (Btu/scf) determined on a 15-minute block period basis when regulated material is routed to the flare for at least 15-minutes. ***[Also reported in Part B-tbl 3 - RSR Deviation]***	X		Continuous Monitoring System	12/14/2022 at 05:30 hours	12/14/2022 at 05:45 hours	The combustion zone net heating value of the flare measured less than the required 270 BTU/SCF for one (1) 15-minute quadrant during a flaring event.	During the btu analyzer daily calibration, the BTU analyzer began reading the btu content of the calibration gas, instead of the actual gas being flared. The calibration gas had a high BTU heating value. This high BTU reading caused the natural gas make-up valves for the East Flare to erroneously close. The BTU content of the actual gas being flared at that time was much lower than the calibration gas due to the amount of nitrogen in the flare header from the current equipment purges and cleaning. When the BTU analyzer daily calibration was complete, and the BTU analyzer began reading the heating value of the actual gas being flared, the heating value of the gas being flared was less than 270 Btu/scf limit for one 15-min quadrant. If the natural gas make-up valves had not been closed, it is believed that this would not have been a deviation.	Since the deviation was due to the BTU analyzer recording the heating value of the calibration gas instead of the actual gas being flared, the analyzer engineer began working so that the system would record the BTU value of the gas being flared prior to the daily calibration and hold that value until the daily calibration was completed. Once the calibration is completed, the BTU analyzer will begin reading the actual flare gas again. This will hopefully prevent the natural gas make-up valves from closing erroneously.	No	No Report	No Report

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P004 - West Hydrocarbon Flare	**Citation: P004: Part C.40.b)(1)c [40 CFR 63 Subpart CC)]** [Note: there is not a specific Title V reference to the following requirement] **[40 CFR 63.670(i)]** The owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate in the flare header or headers that feed the flare as well as any flare supplemental gas used. (1) The flow rate monitoring systems must be able to correct for the temperature and pressure of the system and output parameters in standard conditions (i.e., a temperature of 20 °C (68 °F) and a pressure of 1 atmosphere). ***[Also reported in Part B-tbl 3 - RSR Deviation]***		X	Continuous Monitoring System	11/10/2022 at 10:05 hours	11/10/2022 at 11:40 hours	The natural gas flow rate monitoring system was not able to correct for temperature and pressure of the system.	This deviation occurred around the same time as maintenance was preparing to replace the natural gas flow meters. It is unclear whether the instruments malfunctioned or if the loss of the temperature and pressure indicators were due to maintenance preparation activities.	Operations moved the flare gas load from the West Flare to the East Flare when the deviation was identified. Maintenance was completed and the temperature and pressure indicators were operating when the West Flare was flaring again and the indicators were required to be operating.	No	No Report	No Report
P003 - East Hydrocarbon Flare	**Citation: P003: Part C.40.b)(1)c [40 CFR 63 Subpart CC)]** [Note: there is not a specific Title V reference to the following requirement] **[40 CFR 63.670(i)]** The owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate in the flare header or headers that feed the flare as well as any flare supplemental gas used. Different flow monitoring methods may be used to measure different gaseous streams that make up the flare vent gas provided that the flow rates of all gas streams that contribute to the flare vent gas are determined ***[Also reported in Part B-tbl 3 - RSR Deviation]***		X	Continuous Monitoring System	11/16/2022 at 15:29 hours	11/16/2022 at 15:42 hours	Indications from supplemental and waste gas flows as well as level indications associated with the East Flare were not retained for thirteen (13) minutes while flaring.	Thirteen minutes of historical data was lost while switching from one DCS server to a backup server because the backup server was not in sync. Board operators did not lose indication during this time and the instruments were all functioning correctly.	The Process Controls and Process Computing teams troubleshot the server synchronization issue and were able to begin recording data again. The issue was resolved.	No	No Report	No Report

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P004 - West Hydrocarbon Flare	**Citation: P004: Part C.40.b)(1)c [40 CFR 63 Subpart CC)]** [Note: there is not a specific Title V reference to the following requirement] **[40 CFR 63.670(i)]** The owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate in the flare header or headers that feed the flare as well as any flare supplemental gas used. ...If assist air or assist steam is used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of assist air and/or assist steam used with the flare. ***[Also reported in Part B-tbl 3 - RSR Deviation]***		X	Continuous Monitoring System	10/8/2022	12/29/022	The volumetric flow rate of the assist steam used for the West Flare was intermittently not accurately measured, calculated, and recorded for a total of seven hundred and eighty (780) hours while the flare was in use.	The large ring steam valve on the West Flare was intermittently cracked open to allow a small amount of steam to flow through for winterization purposes, while the Refinery was continuously flaring following the events on September 20, 2022. The flow rate from this valve was not accounted for in the calculations and measurements required for compliance because the flow rate was below the low flow cut-off rate for this calculation.	It was confirmed that the large ring steam was not needed to prevent freezing/thawing because the dead-leg created by keeping the large ring steam valve closed was small. Since it was confirmed that the large ring steam was not needed, the valve could remain closed per original design. Operators were reinstructed to keep the large ring steam valve closed unless additional steam is needed during a flaring event.	No	No Report	No Report
P003/P004 - East and West Hydrocarbon Flare	**Citation: P003/P004, Part C.40.b)(2)d. [40 CFR 60.103a.(h)]** The permittee shall not burn in any affected flare any fuel gas that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit.	X		Continuous Monitoring System	See attached Table 1 for specific times	See attached Table 1 for specific times	East Flare - H_2S emissions exceeded 162 ppmv on a 3-hour rolling average basis for (406) 3-hour averages during a flaring event West Flare - H_2S emissions exceeded 162 ppmv on a 3-hour rolling average basis for (535) 3-hour averages during a flaring event	Due to the Refinery fire that occurred on Sept 20, 2022, all of the refinery process units were shut down. During this process, H2S and other contaminants had to be purged from the process units in order for the units to be put into their "safe park" mode. This caused high H2S gas to be sent to the refinery flares intermittently. The Refinery fire caused the flare gas recovery compressors to shut down and they remained down through the 4th quarter. Without the use of the flare gas recovery compressors, the high H_2S gas could not be treated properly prior to being flared.	Once the Refinery shutdown was complete and the units were fully purged and in "safe park" status, the H_2S in the gas being flared was reduced. The refinery continues to work through the issues caused by the Refinery fire in September 2022. Every effort is being made to keep the flares in compliance with these limits to the extent possible.	Yes	9/20/2022	10/7/2022

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P003/ P004 - East and West Hydrocarbon Flare	**Citation: P003/P004: Part C.40.d)(2)** The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC: *[Note: there is not a specific Title V reference to the following requirement]* **[40 CFR 63 Subpart CC; 40 CFR 63.671(a)]** For each CPMS installed to comply with applicable provisions in §63.670, the owner or operator shall install, operate, calibrate, and maintain the CPMS as specified in paragraphs (a)(1) through (8) of this section. (1) Except for CPMS installed for pilot flame monitoring, all monitoring equipment must meet the applicable minimum accuracy, calibration and quality control requirements specified in Table 13 of this subpart. ***[AIso reported in Part B-tbl 3 - RSR Deviation]***		X	Continuous Parameter Monitoring System (CPMSs)	1/31/2020	12/13/2022	BPH has identified monitoring Instrumentation in the hydrocarbon flare system that does not meet all of the requirement of 40 CFR 63.671 of Subpart CC. (previously reported)	The refinery sector rule updated 40 CFR 63 Subpart CC requirements in 2015 to include new flare instrumentation requirements. BPH immediately began implementing their plan to come in to compliance and as they have operated, additional flare instrumentation has been identified that does not meet the MACT CC - Table 13 requirements.	This deviation was first identified in 2Q2020 for two flare waste gas flow meters. A capital project was initiated to review instrumentation for compliance with MACT CC Table 13. As part of the capital project, six (6) natural gas system flow meters were found to be out of compliance in addition to the two waste gas flow meters previously identified (one (1) 3rd party hydrogen flow meter and one (1) excess treated fuel gas flow meter). Three (3) of the six natural gas flow meters were completed on October 24, 2022. The other three (3) natural gas flowmeters were completed on November 22, 2022, the 3rd party hydrogen flowmeter was commissioned on December 13, 2022. The excess treated fuel gas control valve was taken out of service on September 20, 2022 following the Refinery fire in CV1. Control logic was implemented for the excess treated fuel gas flow meter in January 2023. All flow meters identified in this deviation are now in compliance, this deviation is now closed.	No	No Report	No Report
P003/ P004 - East and West Hydrocarbon Flare	**Citation: P003/P004: Part C.40.d)(2)** The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC: *[Note: there is not a specific Title V reference to the following requirement]* **[40 CFR 63 Subpart CC; 40 CFR 63.670(h)(2)]** (h) Subsequent to initial observations, conduct visible emissions observations using either the methods in paragraph (h)(1) or (h)(2) of this section. (h)(2) Use a video surveillance camera to continuously record (at least one frame every 15 seconds with time and date stamps) images of the flare flame and a reasonable distance above the flare flame at an angle suitable for visual emissions observations. The owner or operator must provide real-time video surveillance camera output to the control room or other continuously manned location where the camera images may be viewed at any time. **[Also reported in Part B-tbl 3 - RSR Deviation]**		X	Continuous video surveillance for visible emissions from flare	12/20/2022	12/28/2022	The images of the flare flame were not continuously recorded as required	The Honeywell Snapshot Manager Application Service malfunctioned again due to a server issue and stopped collecting the data. This deviation was also reported in the 3Q2022 report.	The refinery is continuing to work with Honeywell to identify and implement solutions to improve the long term reliability of the system. The solution implemented in 3Q2022 did not completely fix the issue, since the snapshot manager continues to have problems. The server issue is ongoing and BP will continue to work with Honeywell until the final fix is determined. BPH has submitted a project to resolve these issues.	No	No Report	No Report

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
		Qtr.	Semi-Annual		DEVIATION DURATION Date / Time Start	DEVIATION DURATION Date / Time End	DESCRIPTION AND MAGNITUDE OF THE DEVIATION					
P009 - SRU1	**Citation: P009 Part C.13.b)(1)f., b)(2)g, f)(1)b. [40 CFR 60.104(a)(2)(i) and 40 CFR 63.1568(a)(1)(i), and per CD - subject to NSPS Ja - citation 40 CFR 60.102a(f)(1)(i)]** The permittee shall not discharge or cause the discharge of any gases into the atmosphere from the Claus sulfur recovery plant containing in excess of 250 ppm SO2 by volume (dry basis) at zero percent excess air as a rolling, 12-hour average. ***Note**: this is a Title V Deviation only. This is not a deviation of 40 CFR 60 Subpart J standard pursuant to 40 CFR 60.8(c), which states: emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.*	X		Continuous Monitoring System (CMS)	10/1/2022 at 00:00 hours	10/3/2022 at 13:00 hours	The SO_2 concentration at the SRU1 Thermal Oxidizer exceeded the required 250 ppmv SO_2 for over a 12-hour period for a total of sixty one (61) 12-hr average periods	Following the fire on September 20th, the Refinery restarted the shut down process for the Sulfur Recovery Unit #1 (SRU1). As a result of the shutdown, the SO_2 concentration exceeded the 250 ppm 12-hr rolling average.	This deviation is a continuation of excess emissions from 3Q2022 when the SRUs were shutdown following the fire on September 20, 2022. The SRU shut down procedures were followed during this shutdown. The procedure development included evaluating ways to minimize emissions during the shutdown process. During the shutdown, operations made every attempt to minimize excess emissions consistent with safety and good air pollution control practices.	Yes	9/20/2022	10/7/2022
T017 - PR-500155 EFR Tank	**Citation: T017 Part C.50.c)(1).b., C.50.c)(2)c. [40 CFR 63.646(f)(3); OAC 3745-21-09(Z)** Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports. **[ref per 40 CFR 63.660 (Subpart CC) - 40 CFR 63.1063(b)(4)]** Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design. **[Also reported in Part B-tbl 3 - RSR deviation]**	X		Periodic Seal Inspections	11/3/2022	11/4/2022	During the annual seal inspection for T017 (Tank 155), it was observed that both vacuum breakers were in the open position before the tank's designated set point.	The low level/ alarm setting was incorrect for the operations of this tank. It was determined that the roof height setting needed to be adjusted.	When the issue was identified, the external floating roof was floated enough to reset the vacuum breaker. The low-level limit on the tank was increased to keep this from occurring again.	No	No Report	No Report

(PART C) Emissions Unit Terms and Conditions (Permit Requirement Reporting) - Deviation Reporting (Table 2)

THERE WERE NO DEVIATIONS OF ANY OF THE TERMS AND CONDITIONS OF Section C OF THE TITLE V PERMIT DURING THE REPORTING PERIOD SPECIFIED IN THIS REPORT

Add rows as necessary to the following table for reported deviations (one for each Term as applicable; see detailed instructions for more information)

EMISSIONS UNIT (EU) NUMBER & DESCRIPTION (See below)	TITLE V PERMIT TERM NO & DESCRIPTION	Reporting		ACTUAL METHOD USED TO DETERMINE COMPLIANCE	DEVIATION			PROBABLE CAUSE FOR THE DEVIATION	CORRECTIVE ACTIONS / PREVENTATIVE MEASURES TAKEN	WAS DEVIATION ATTRIBUTABLE TO A MALFUNCTION?	MALFUNCTION VERBAL REPORT DATE (If no reports were	MALFUNCTION WRITTEN REPORT DATE (If no reports
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P009 - SRU1	**Citation: P009 Part C.13.b)(2)(h)** The permittee may comply with the applicable provisions of 40 CFR Part 60, Subpart Ja to satisfy the requirements of 40 CFR Part J for this emissions unit. **[40 CFR 60 Subpart Ja, 60.103a(d)]** Except as provided in 60.103a(f) and (g), a root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting one of the conditions specified in 60.103a(c)(1) through (3). *(**NOTE:** The requirements of 40 CFR Part 60 Subpart Ja became effective upon the effective date of the March 2020 consent decree.*		X	Reporting	11/15/2022	12/31/2022	The NSPS Ja RCA was not completed within the required 45 days	A refinery fire occurred on September 20, 200 in the area of the Crude/Vac 1 unit and TIU Mix drum, which led to the shutdown of the entire Refinery, including the sulfur recovery plants. (Combined with deviation below)	The Refinery has completed the required investigation and RCA report on January 30, 2023. This RCA was submitted in the 4th quarter NSPS Ja RCA report.	No	No Report	No Report
P037 - SRU2/3	**Citation: P037 Part C.20.b)(1)(h)** (refers to 40 CFR 60 Subpart J general applicability) **[40 CFR 60 Subpart Ja, 60.103a(d)]** Except as provided in 60.103a(f) and (g), a root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting one of the conditions specified in 60.103a(c)(1) through (3). *(**NOTE:** The requirements of 40 CFR Part 60 Subpart Ja became effective upon the effective date of the March 2020 consent decree.*		X	Reporting	11/15/2022	12/31/2022	The NSPS Ja RCA was not completed within the required 45 days	A refinery fire occurred on September 20, 200 in the area of the Crude/Vac 1 unit and TIU Mix drum, which led to the shutdown of the entire Refinery, including the sulfur recovery plants. (Combined with deviation above)	The Refinery has completed the required investigation and RCA report on January 30, 2022. This RCA was submitted in the 4th quarter NSPS Ja RCA report.	No	No Report	No Report
T174 - PR-500770 EFR Tank	**Citations: T174 Part C.49.b.1)d. and b.2)(c) [OAC 3745-21-09(Z)];** OAC 3745-21-09(Z)(3)(c) - no tank can store a petroleum liquid with a maximum true vapor pressure greater than 1.5 pounds per square inch absolute unless it is equipped with an external floating roof **b.1)f., b.1) g., and c(2)e [40 CFR 63 Subpart CC, and 40 CFR 60 Subpart Kb]** 60.112b(a)(2)(iii) The roof shall be floating on the liquid at all times except during initial fill.	X		Reporting	7/20/2022	7/21/2022	A check valve failure caused T174 (Tank 500770) to exceeded the maximum True Vapor Pressure of 76.6 kPa (11.1 Kpa)	This deviation was inadvertently missed in reporting in the 3Q2022 Report. The Refinery was in the start up process following a Refinery wide Turnaround. During the start up process, a failed check valve caused Hydrogen to enter Tank 500770. This caused an overpressure compromising the tank seal and causing the roof to partially sink.	Tank 770 was taken out of service. Procedures were reviewed for start up to include requirements to verify check valves to prevent hydrogen backflow.	No	No Report	No Report

Table 1: Specific exceedances of 40 CFR 60.103a(h) for the East and West Flare in 4Q2022

Citation: P003/P004, Part C.40.b)(2)d. [40 CFR 60.103a.(h)] The permittee shall not burn in any affected flare any fuel gas that contains H2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit.

East Flare		
Start time	End time	Number of 3-hour averages above 162 ppm H2S
10/1/2022 0:00	10/8/2022 12:00	180
11/10/2022 12:00	11/10/2022 22:00	10
11/12/2022 9:00	11/14/2022 15:00	54
11/16/2022 23:00	11/17/2022 12:00	13
11/17/2022 14:00	11/19/2022 13:00	47
11/21/2022 1:00	11/21/2022 7:00	6
11/21/2022 12:00	11/23/2022 11:00	47
11/25/2022 10:00	11/25/2022 16:00	6
11/25/2022 21:00	11/26/2022 1:00	4
11/26/2022 3:00	11/26/2022 8:00	5
11/26/2022 15:00	11/26/2022 20:00	5
11/28/2022 11:00	11/28/2022 19:00	8
12/1/2022 16:00	12/1/2022 18:00	2
12/1/2022 22:00	12/2/2022 5:00	7
12/2/2022 11:00	12/2/2022 14:00	3
12/20/2022 9:00	12/20/2022 14:00	5
12/29/2022 20:00	12/30/2022 0:00	4
	Total (hours)	**406**

West Flare		
Start time	End time	Number of 3-hour averages above 162 ppm H2S
10/8/2022 12:00	10/15/2022 17:00	173
10/15/2022 21:00	10/16/2022 1:00	4
10/16/2022 10:00	10/20/2022 15:00	101
10/20/2022 16:00	10/21/2022 4:00	12
10/21/2022 10:00	10/21/2022 15:00	5
10/22/2022 0:00	10/22/2022 4:00	4
10/22/2022 11:00	10/23/2022 7:00	20
10/23/2022 12:00	10/23/2022 20:00	8
10/24/2022 15:00	10/24/2022 19:00	4
10/25/2022 10:00	10/25/2022 12:00	2
10/29/2022 18:00	10/30/2022 18:00	24
10/31/2022 7:00	11/4/2022 8:00	97
11/4/2022 12:00	11/4/2022 16:00	4
11/5/2022 12:00	11/6/2022 4:00	16
11/8/2022 2:00	11/8/2022 3:00	1
11/8/2022 4:00	11/10/2022 14:00	58
12/14/2022 10:00	12/14/2022 12:00	2
	Total (hours)	**535**